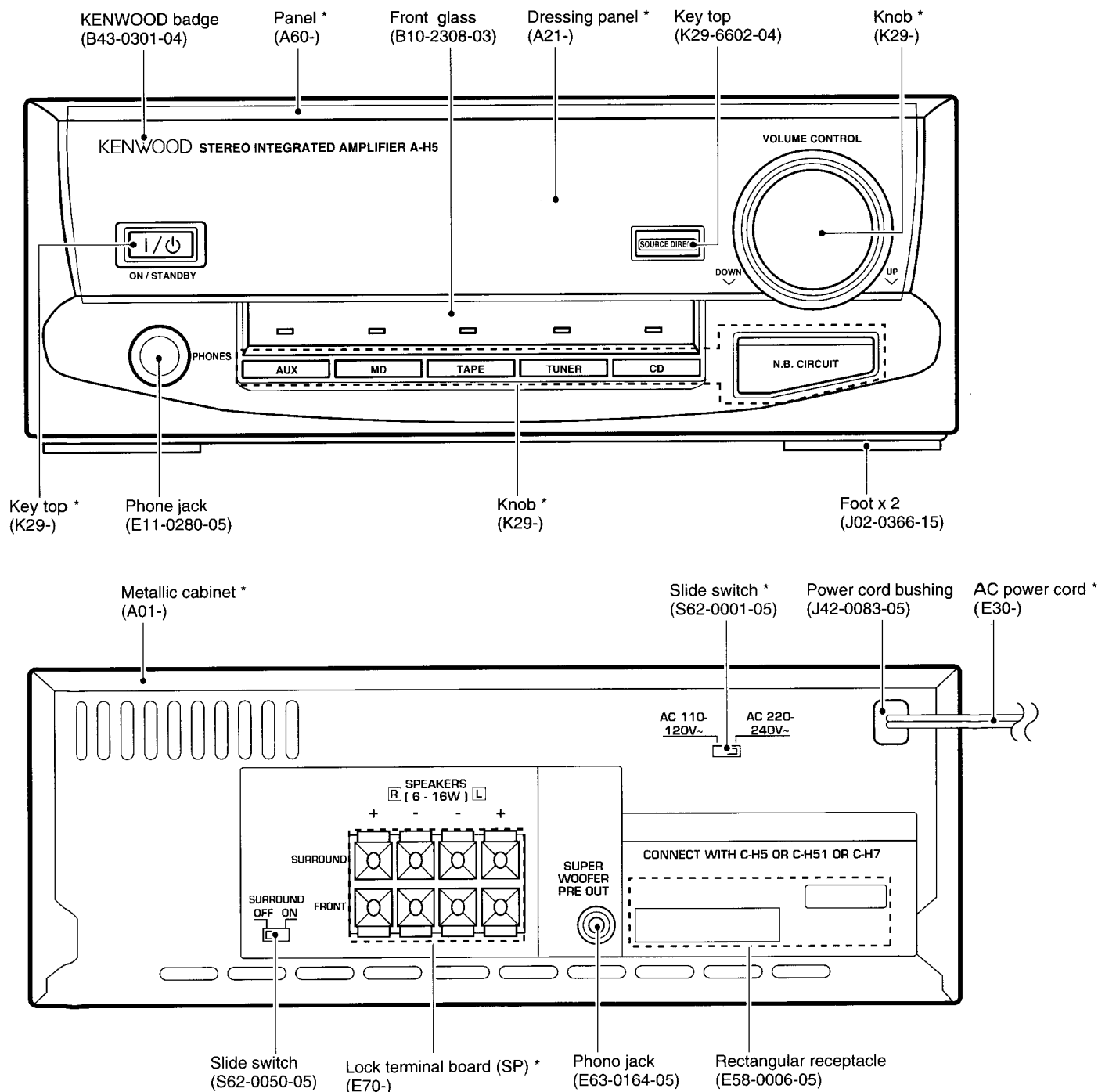


STEREO INTEGRATED AMPLIFIER
A-H5
 SERVICE MANUAL
 (XD-6000/8000/9580 SERIES)

KENWOOD

© 1997-3/B51-5293-00 (K/K) 2578



* Refer to parts list on page 11.

- Caution :**
1. Use the power supply jig PS-94UA when a repair or action confirmation are done.
 2. Set the input level to minimum before power on if supplying audio signal to A-H5.
 3. Connect 56k-ohms resistor across connector CN19 if setting A-H5 to turn on by itself.
 4. Connect C-H5, H6 or H7 to A-H5 if repairing control pcb (X07, B/7) in the A-H5.

A-H5

CONTENTS / ACCESSORIES

Contents

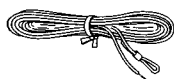
CONTENTS / ACCESSORIES	2	SCHEMATIC DIAGRAM	8
CONTROLS	3	PARTS LIST	11
PC BOARD	5	SPECIFICATIONS	Back cover
EXPLODED VIEW	7		

System configuration

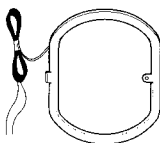
SYSTEM	TUNER / EQUALIZER	AMPLIFIER	CASSETTE DECK	CD PLAYER	SPEAKER	MD RECORDER
XD-6060	C-H51	A-H5	X-H5	DP-H5	LS-H6	—
XD-6500	C-H5	A-H5	X-H5	DP-MH5	LS-H5	—
XD-6560	C-H51	A-H5	X-H5	DP-MH5	LS-H6	—
XD-8000	C-H6	A-H5	X-H5	DP-H5	LS-H6	—
XD-8550	C-H6	A-H5	X-H5	DP-MH5	LS-H6	—
XD-8560	C-H61	A-H5	X-H5	DP-MH5	LS-H6	—
XD-6000/W	C-H5/W	A-H5	X-H5	DP-H5	LS-H5	—
XD-6050/W	C-H5/W	A-H5	X-H5	DP-H5	LS-H5	—
XD-6550/W	C-H5/W	A-H5	X-H5	DP-MH5	LS-H5	—
XD-8050/W	C-H6/W	A-H5	X-H5	DP-H5	LS-H6	—
XD-8500/W	C-H6	A-H5	X-H5	DP-MH5	LS-H6	—
XD-9580MD	C-H7	A-H5	—	DP-MH5	LS-H6	DM-H5

Accessories

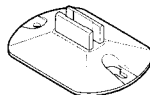
FM indoor antenna(1)
(T90-0801-05) : K,M type
(T90-0809-05) : T,E type



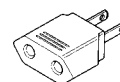
AM loop antenna(1)
(T90-0820-05)



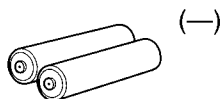
Loop antenna stand (1)
(J19-3645-05)



AC plug adaptor.....(2)
(E03-0115-08)



Batteries (R6/AA).....(2)



Speaker cords(2)
(E30-5156-05)

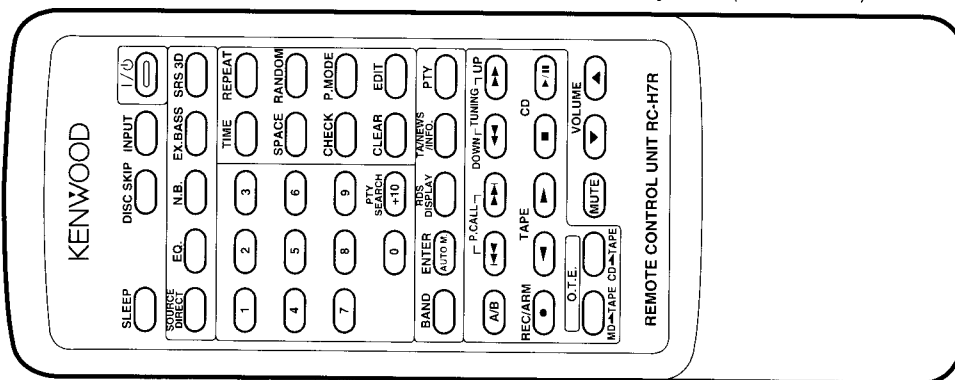


Parallel cord.....(1)
(E30-2738-05)

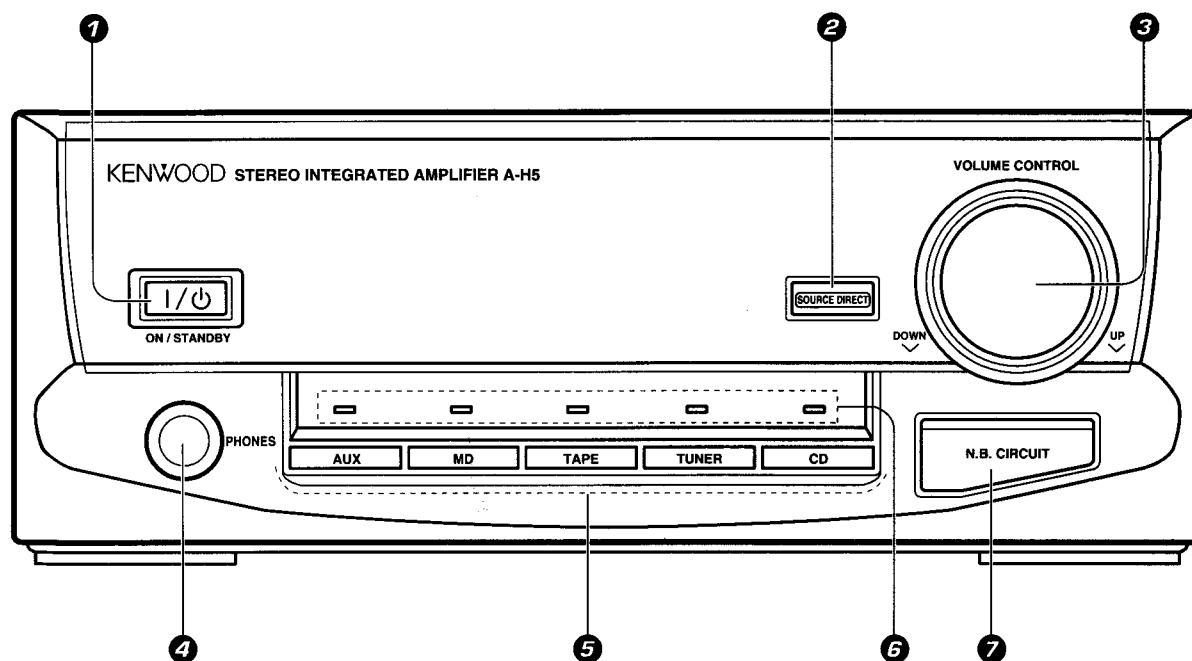


Remote control unit(1)
(A70-1110-05) : K,M type
(A70-1121-05) : T,E type

Battery cover (A09-0380-08)



CONTROLS

Amplifier unit**1 ON/STANDBY (I/O) key/Indicator**

Power ON/OFF switching is executed.

The indicator in the key lights in green when the power is ON and in red when it is off (provided that the power cord is connected to a power outlet)

2 SOURCE DIRECT key/Indicator

Press the key when you want to enjoy a purer sound.

3 VOLUME CONTROL knob

Normally this is used for volume adjustment.

This control is also used to adjust the input level when the MD recorder or other external equipment is used.

4 PHONES terminal

For connection of a headphone (optional).

5 Input key

Press to select the input source. When TAPE or CD is selected, playback starts automatically provided that a tape or disc has already been loaded.

6 Input indicators

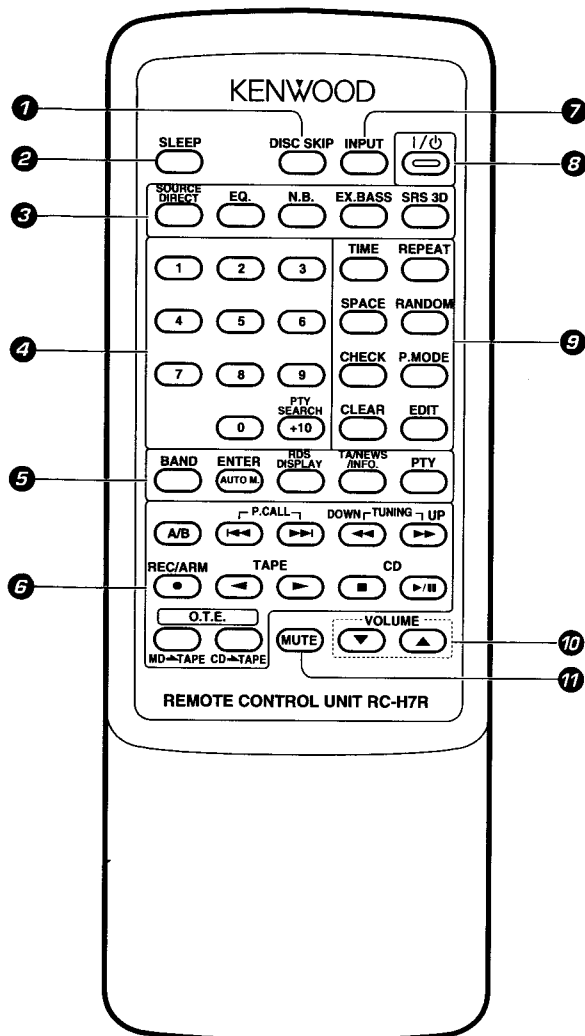
The indicator corresponding to the currently selected input source lights up.

7 N.B. CIRCUIT key

Press to compensate for the lack of heavy bass sound which may occur during low-level listening.

CONTROLS

Remote control unit



Model: RC-H7R
Infrared ray system

① DISC SKIP key (For XD-8550)

Press to select the disc to be used for playback or recording.

② SLEEP key

Press to set the sleep timer function.

③ Tone control-related keys

SOURCE DIRECT key : Press the key when you want to enjoy a purer sound.

EQ. key : Press before operating the equalizer.

N.B key : Press to compensate for the lack of heavy bass sound which may occur during low-level listening.

EX. BASS key : Press to enhance the high and low frequencies.

SRS 3D key : Switches the SRS 3D play on and off.

④ Numeric keys

Select a CD track or tuner stations.

⑤ Tuner-related keys

BAND key : Press to switch the receiving band.
ENTER/AUTO M. key : Press when entering a station in memory.

RDS DISPLAY key

TA/NEWS/INFO. key

PTY key

⑥ General operation keys

A/B key : Press to select the deck to be operated.

P.CALL (◀▶) keys :

When the TUNER input is selected, used to recall a preset station.

When the CD input is elected, used to skip tracks.

TUNING UP/DOWN (◀▶) keys :

When the TUNER input is selected, used to receive a station.

When the CD or TAPE input is selected, used to move the played position in the forward or reverse direction.

REC/ARM (●) key :

Press to start recording. Pressing the key during recording stops it after leaving a non-recorded space (blank) of about 4 seconds.

TAPE play (◀▶) keys

Stop (■) key

CD play/pause (▶/■) key

O.T.E. MD → TAPE key : Press when copying sound from a MD to a tape.

O.T.E. CD → TAPE key : Press when copying sound from a CD to a tape.

⑦ INPUT key

Press to select the input source to be played or recorded. This key has the same function as the input selector keys on the amplifier unit.

⑧ On/standby (I/⏻) key

This key has the same function as the key with the same name on the amplifier unit.

⑨ CD applied operation-related keys

TIME key : Press to switch the time information displayed on the CD player.

REPEAT key : Press to play CD track(s) repeatedly.

SPACE key : Press during CD recording etc. to create a non-recorded blank of a few seconds.

RANDOM key : Press to play tracks in a different order than the recorded order.

CHECK key : Press to check the order of tracks which have been programmed.

P.MODE key Press to switch the program mode on-off. This key is also used when entering a track in the program.

CLEAR key : Press to clear a programmed track(s)

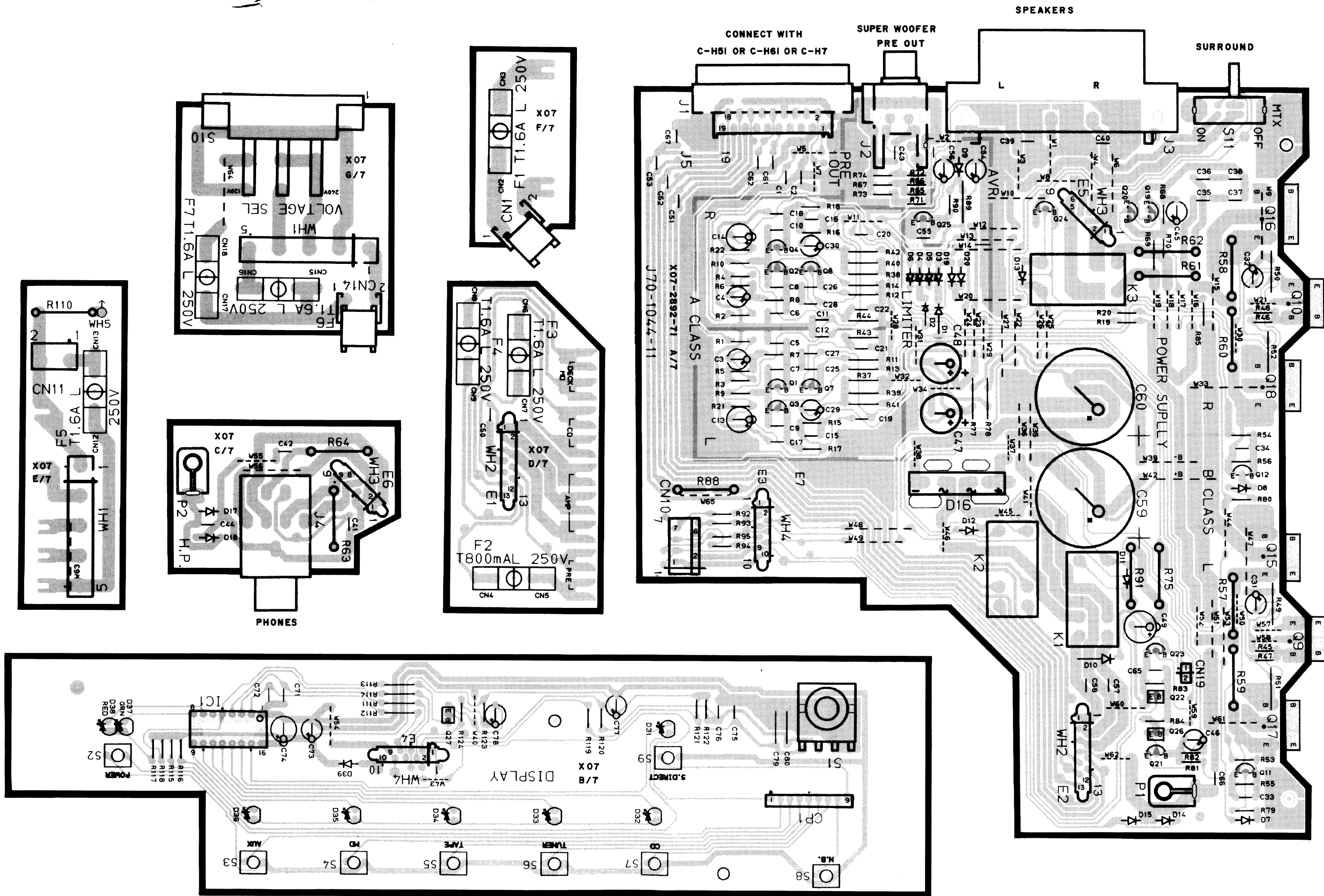
EDIT key : Press when recording a CD.

⑩ VOLUME CONTROL (▽ △) keys

These keys have the same function as the VOLUME CONTROL on the amplifier unit.

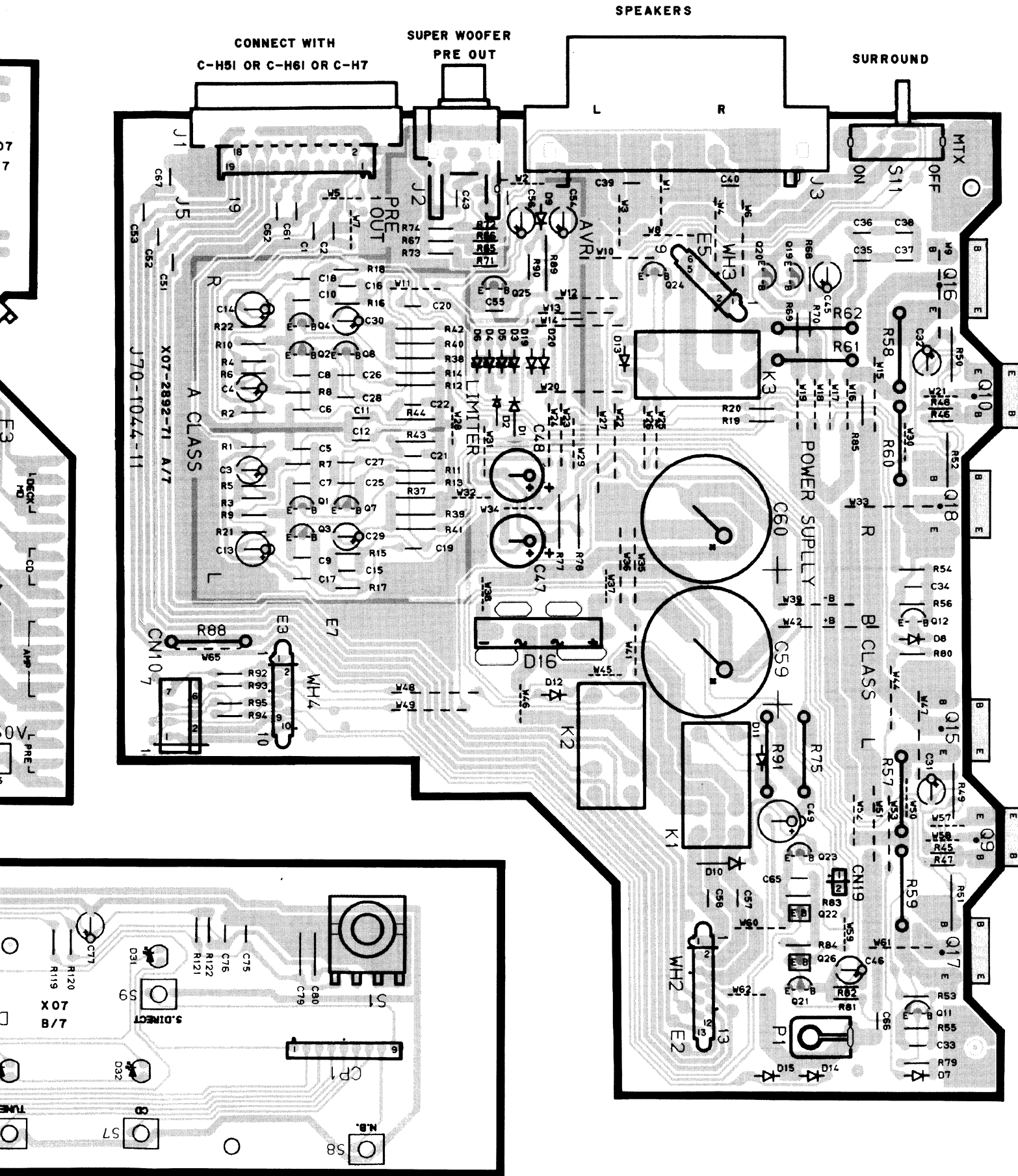
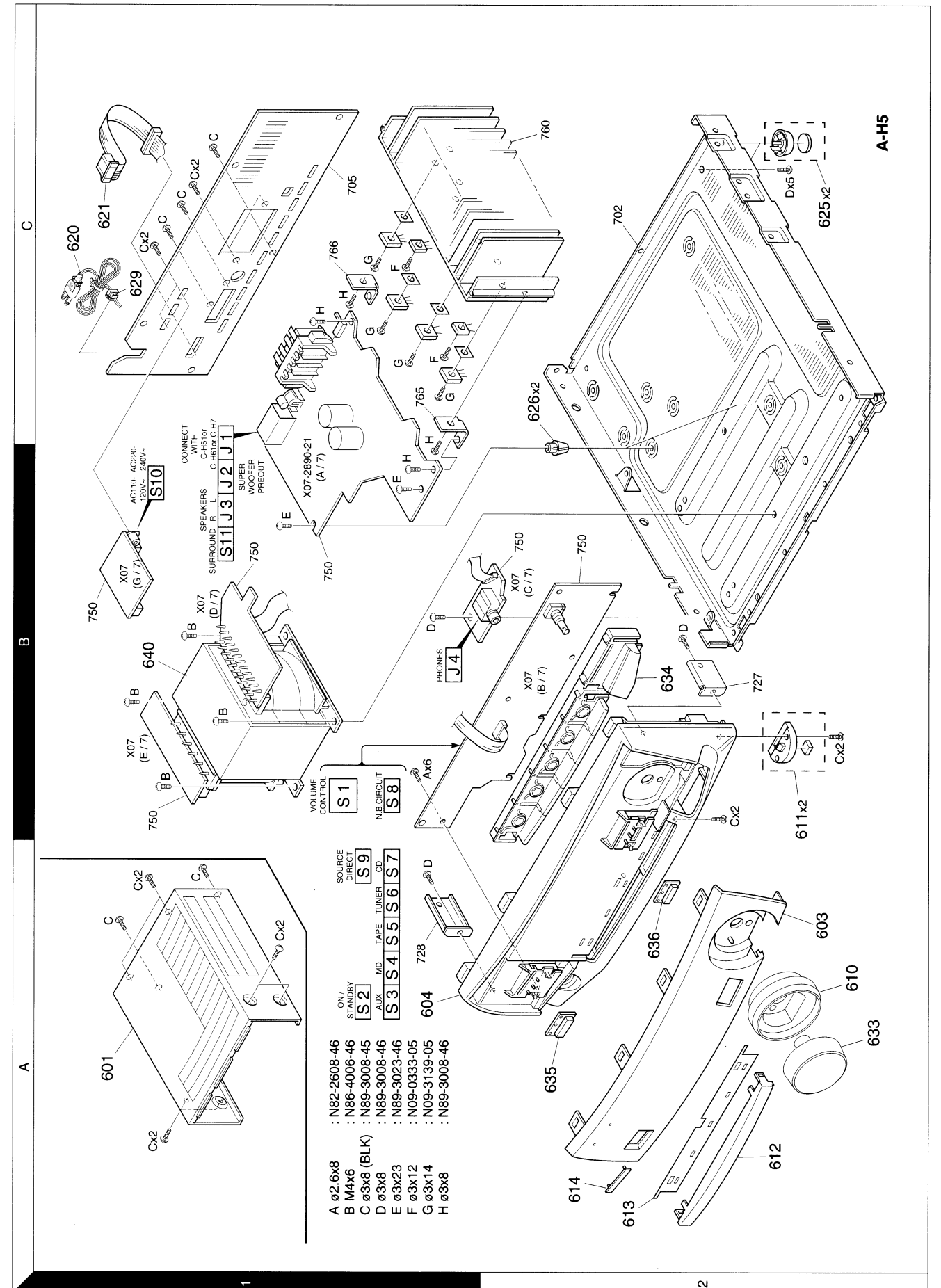
⑪ MUTE key


PC BOARD (Component side view)



Refer to the schematic diagram for the values of resistors and capacitors.

EXPLODED VIEW

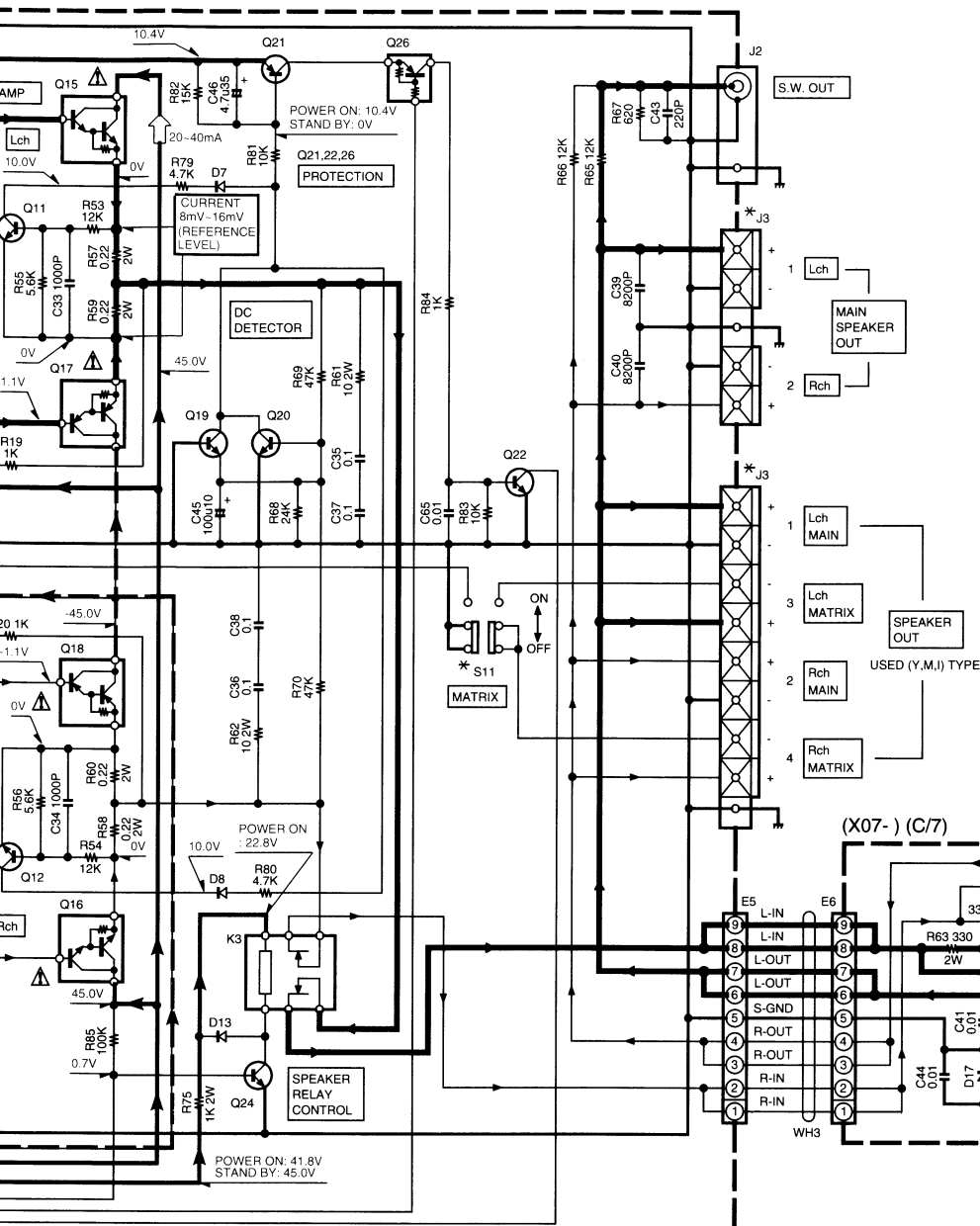


 SIGNAL LINE
 GND LINE
 +B LINE
 -B LINE

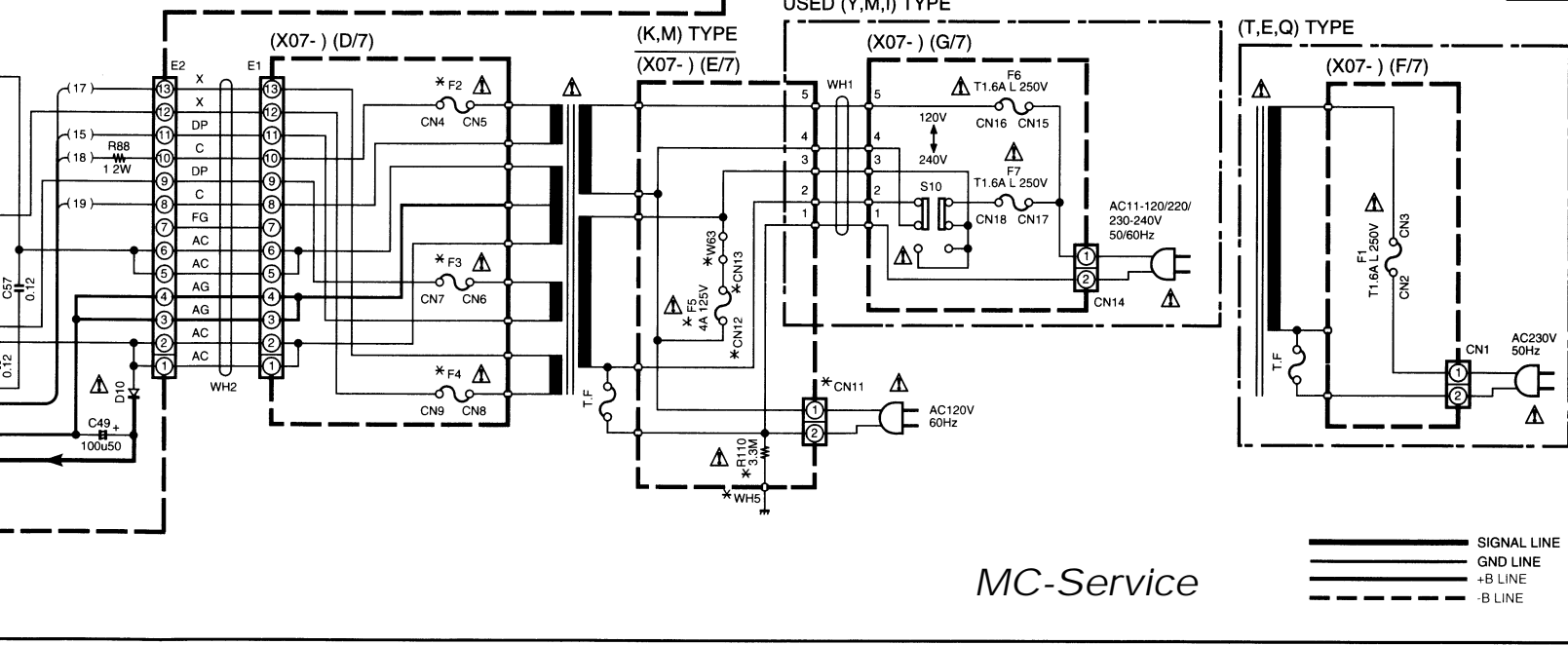
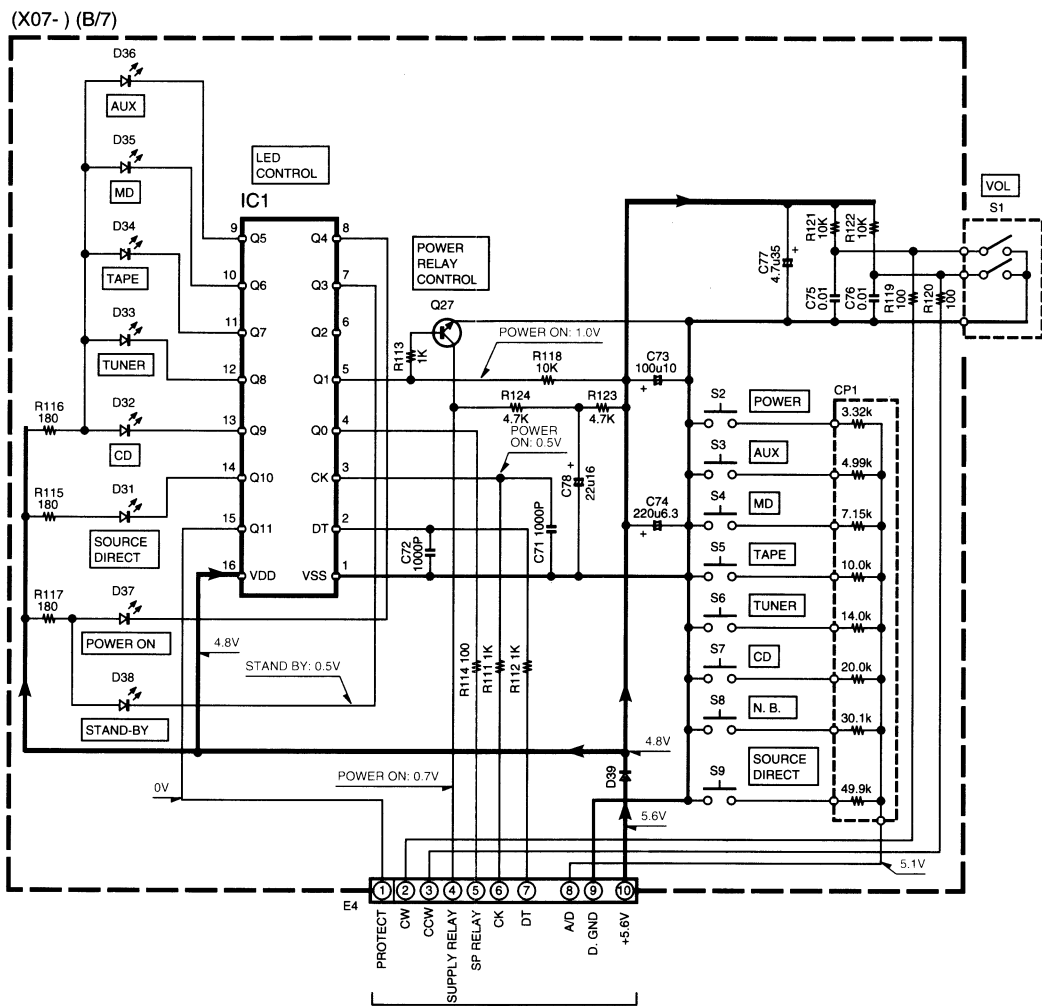
Q1-4,21
Q7,8,11,12,19,20,24
Q9,10
Q15,16
Q17,18
Q22,27
Q23
Q25
Q26

IC1

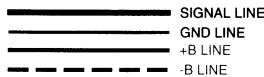
D1,2,7,8,11-15,17-20,39
D3,4
D5,6
D9
D10
D16
D31-37
D38



DESTINATION	UNIT No.	F2	F3,4	F5	J3	D19,20	S11	W63	WH5	CN11-13	R110
U.S.A.	K	X07-2890-11	2A 125V	2.5A 125V	YES	4P	NO	NO	YES	YES	YES
PX	Y										
GENERAL MARKET	M	X07-2890-21	T800mA L 250V	T1.6A L 250V	NO	8P	YES	YES	NO	NO	NO
MALAYSIA	I										
U.K.	T										
EUROPE	E	X07-2892-71	T800mA L 250V	T1.6A L 250V	NO	4P	NO	NO	NO	NO	NO
RUSSIA	Q										



MC-Service



- Q1-4,21

Q7,8,11,12,19,20,24

Q9,10

Q15,16

Q17,18

Q22,27

Q23

Q25

Q26
- : 2SA992(F,E)

: 2SC1845(F,E)

: 2SC4137F50(V,W)

: 2SD2493

: 2SB1624

: 2SC1740S(Q,R) or 2SC2785(F,E)

: 2SC2003(L,K)

: 2SC3940A(R,S)

: UN4119 or DTA113ZSA
- IC1
- : BU2090
- D1,2,7,8,11-15,17-20,39

D3,4

D5,6

D9

D10

D16

D31-37

D38
- : 1SS131 or HSS104A

: NTZJ15(B) or UZ-15BSB

: NTZJ18(B) or UZ-18BSB

: NTZJ11(B) or UZ-11BSB

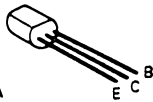
: S5688B or 1SR139-400

: D3SBA20F03 or RBV-402LFA

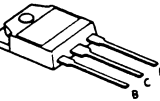
: B30-2468-05

: B30-2430-05

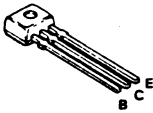
2SA992
2SC1845
2SC2003
2SC3940A



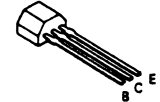
2SB1624
2SD2493



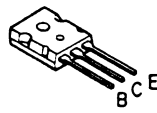
2SC2785



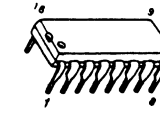
DTA113ZSA
2SC1740S



2SC4137F50



BU2090



CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.

A-H5 (K)

Y08-5500-11

PARTS LIST

* New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
C13, 14			CE04KW1V470M	ELECTRO		
C15, 16			CC45FSL1H070D	CERAMIC	35WV	
C17, 18			CC45FSL1H101J	CERAMIC	7.0PF	D
C19, 20			CC45FSL1H330J	CERAMIC	100PF	J
C21, 22			CC45FSL1H102K	CERAMIC	33PF	J
C25-28			CC45FSL1H820J	CERAMIC	1000PF	K
C29, 30			CE04KW1H100M	ELECTRO	82PF	J
C31, 32			CE04KW1H010M	ELECTRO	10UF	50WV
C33, 34			CK45FB1H102K	ELECTRO	1.0UF	50WV
C35-38			CF92FV1H104J	MF-C	1000PF	K
C39, 40			CO93FMG1H822J	MYLAR	0.10UF	J
C41, 42			CK45FF1H103Z	CERAMIC	8200PF	J
C43			CC45FSL1H221J	CERAMIC	0.010UF	Z
C44			CK45FF1H103Z	CERAMIC	220PF	J
C45			CE04KW1A101M	ELECTRO	0.010UF	Z
C46			CE04KW1V4R7M	ELECTRO	100UF	10WV
C47, 48			CE04KW1H221M	ELECTRO	4.7UF	35WV
C49			CE04KW1H101M	ELECTRO	220UF	50WV
C51-53			CK45FF1H103Z	ELECTRO	100UF	50WV
C54			CE04KW1V4R7M	ELECTRO	0.010UF	Z
C55			CK45FF1H103Z	ELECTRO	4.7UF	35WV
C56			CE04KW1V100M	CERAMIC	0.010UF	Z
C57, 58			CE04KW1H124J	MF-C	10UF	35WV
C59, 60			C90-3720-05	ELECTRO	0.12UF	J
C65			CK45FF1H103Z	ELECTRO	3300UF	50WV
C66			CC45FSL1H151J	CERAMIC	0.010UF	Z
C71, 72			CK45FB1H102K	CERAMIC	150PF	J
C73			CE04KW1A101M	ELECTRO	1000PF	K
C74			CE04KW0J221M	ELECTRO	100UF	10WV
C75, 76			CK45FF1H103Z	ELECTRO	220UF	6.3WV
C77			CE04KW1V4R7M	ELECTRO	0.010UF	Z
C78			CE04KW1C220M	ELECTRO	4.7UF	35WV
CN1			E40-4632-05	PIN ASSY	22UF	16WV
CN10			E40-4297-05	FLAT CABLE CONNECTOR		
CN11			E40-4245-05	PIN ASSY		
CN14			E40-4632-05	PIN ASSY		
CN19			E40-4871-05	PIN ASSY		
J1			E58-0006-05	RECTANGULAR RECEPTACLE		
J2			E63-0164-05	PHONO JACK (SUPER WOOFER)		
J3			E70-0056-05	LOCK TERMINAL BOARD (SP)		
J4			E70-0057-05	LOCK TERMINAL BOARD (SP)		
F1			F05-1623-05	PHONE JACK (HEADPHONE)		
F2			F05-8013-05	FUSE (SEMKO)		
F3, 4			F50-0069-05	FUSE (SEMKO)		
F4			F05-1623-05	FUSE (SEMKO)		
F5			F50-0070-05	FUSE (5x20)		
F6, 7			F50-0073-05	FUSE (5x20)		
CN2-9			F05-1623-05	FUSE (SEMKO)		
CN4-9			J13-0075-05	FUSE CLIP		
CN12, 13			J13-0075-05	FUSE CLIP		
CN15-18			J13-0075-05	FUSE CLIP		
E7			J11-0808-05	WIRE CLAMPER		
CP1			R90-0954-05	MULTIPLE RESISTOR		
R49-52			RD14NB2E220J	RD	22	J 1/4W

L: Scandinavia
Y: PX(Far East, Hawaii)
Y: AAFES(Europe)

K: USA
T: Europe
X: Australia

P: Canada
E: Europe
M: Other Areas

R: Mexico
G: Germany
Q: Russia

I: Malaysia
Q: Russia

Δ indicates safety critical components.

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Ref. No	Add-ress	New Parts	Parts No.	Description	Desti-nation	Re-marks
A-H5						
601	1A	*	A01-3367-01	METALLIC CABINET (SLVR)	TEQ	
603	1A	*	A01-3416-01	METALLIC CABINET (BLK)	TEQ	
603	2A	*	A21-1914-02	DRESSING PANEL (SLVR)	TEQ	
604	1A	*	A21-1935-02	DRESSING PANEL (BLK)	TEQ	
604	1A	*	A60-1008-01	PANEL	TEQ	
604	1A	*	A60-1037-01	PANEL	TEQ	
610	2A	*	B07-2331-03	ESCUTCHEON (BLK)	TEQ	
610	2A	*	B07-2332-03	ESCUTCHEON (SLVR)	TEQ	
611	2B	*	B07-2335-04	ESCUTCHEON	TEQ	
612	2A	*	B10-2308-03	FRONT GLASS	TEQ	
613	2A	*	B11-0348-04	SMOKED FILTER	TEQ	
614	2A	*	B43-0301-04	KENWOOD BADGE	Y	
620	1C	*	B58-0513-04	CAUTION CARD (PRESET220-240)	MIEQ	
620	1C	*	E30-2592-15	AC POWER CORD	Y	
620	1C	*	E30-2605-05	AC POWER CORD	K	
620	1C	*	E30-2650-05	AC POWER CORD	T	
621	1C	*	E30-2829-05	AC POWER CORD	T	
621	1C	*	E30-2847-05	CORD WITH CONNECTOR	T	
625	2C	*	H10-7242-02	POLYSTYRENE FOAMED FIXTURE	KYMIEQ	
626	2C	*	H10-7243-02	POLYSTYRENE FOAMED FIXTURE	KYMIEQ	
629	1C	*	H10-7244-02	POLYSTYRENE FOAMED FIXTURE	T	
633	2A	*	H10-7245-02	POLYSTYRENE FOAMED FIXTURE	T	
633	2A	*	H25-0681-04	PROTECTION BAG	EQ	
633	2A	*	H50-2142-04	ITEM CARTON CASE	EQ	
634	2B	*	H50-2143-04	ITEM CARTON CASE	EQ	
634	2B	*	H50-2144-04	ITEM CARTON CASE (BLK)	EQ	
635	2A	*	H50-2328-04	ITEM CARTON CASE (SLVR)	EQ	
635	2A	*	H50-2355-04	ITEM CARTON CASE (BLK)	EQ	
635	2A	*	H50-2356-04	ITEM CARTON CASE (SLVR)	EQ	
636	2A	*	J02-0366-15	FOOT	EQ	
636	2C	*	J19-3752-14	UNIT HOLDER	EQ	
636	1C	*	J42-0083-05	POWER CORD BUSHING	EQ	
636	1C	*	J61-0307-05	WIRE BAND	EQ	
633	2A	*	K29-6486-04	KNOB (SLVR)	TEQ	
633	2A	*	K29-6600-04	KNOB (BLK)	TEQ	
634	2B	*	K29-6488-02	KNOB (SLVR)	TEQ	
634	2B	*	K29-6601-02	KNOB (BLK)	TEQ	
635	2A	*	K29-6559-04	KEY TOP	K	
635	2A	*	K29-6712-04	KEY TOP	K	
636	2A	*	K29-6602-04	KEY TOP	K	
640	1B	*	L07-2227-05	POWER TRANSFORMER	YMI	
640	1B	*	L07-2228-05	POWER TRANSFORMER	YMI	
640	1B	*	L07-2229-05	POWER TRANSFORMER	YMI	
640	1B	*	L07-2232-05	POWER TRANSFORMER	YMI	
POWER (X07-2890-11)						
D31 -37			B30-2468-05	LED		
D38			B30-2430-05	LED(RED)		
C1, 2			CC45FSL1H221J	CERAMIC	220PF	J
C3, 4			CE04KW1H3R3M	ELECTRO	3.3UF	50WV
C5, 6			CC45FSL1H101J	CERAMIC	100PF	J
C7 -10			CC45FSL1H470J	CERAMIC	47PF	J
C11, 12			CC45FSL1H101J	CERAMIC	100PF	J

L: Scandinavia
Y: PX(Far East, Hawaii)
Y: AAFES(Europe)

K: USA
T: Europe
X: Australia

P: Canada
E: Europe
M: Other Areas

R: Mexico
G: Germany
Q: Russia

I: Malaysia
Q: Russia

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PARTS LIST

3

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Ref. No	Add-ress	Parts No.	Description	Desti-nation	Re-marks
R57 -60		RS14KB3DR22J	FL-PROOF RS	2W	
R61 ,62		RS14KB3D100J	FL-PROOF RS	2W	
R63 ,64		RS14KB3D33J	FL-PROOF RS	2W	
R75		RS14KB3D102J	FL-PROOF RS	2W	
R77		RD14NB2E151J	RD	1/4W	
R78		RD14NB2E221J	RD	1/4W	
R88		RD14NB3D1R0J	FL-PROOF RS	2W	
R89		RD14NB2E562J	RD	1/4W	
R91		RS14KB3D471J	FL-PROOF RS	2W	
R110		R92-1844-05	CARBON	1/2W	K
Δ K1 ,2		S76-0060-05	MAGNETIC RELAY		
Δ K3		S76-0061-05	MAGNETIC RELAY		
Δ S2 -9		S70-0031-05	TACT SWITCH		
Δ S10		S62-0001-05	SLIDE SWITCH (VOLTAGE)		YMI
Δ S11		S62-0050-05	SLIDE SWITCH (MATRIX)		YMI
S1		T99-0559-05	ROTARY ENCODER (VOLUME)		
D1 ,2		HSS104A	DIODE		
D1 ,2		1SS131	DIODE		
D3 ,4		MTZJ15(B)	ZENER DIODE		
D3 ,4		UZ-15BSB	ZENER DIODE		
D5 ,6		MTZJ18(B)	ZENER DIODE		
D5 ,6		UZ-18BSB	ZENER DIODE		
D7 ,8		HSS104A	DIODE		
D7 ,8		1SS131	DIODE		
D9		MTZJ11(B)	ZENER DIODE		
D9		UZ-11BSB	ZENER DIODE		
Δ D10		S5688B	DIODE		
Δ D10		1SR139-400	DIODE		
D11 -15		HSS104A	DIODE		
D11 -15		1SS131	DIODE		
D16		D3SBA20F03	DIODE		
Δ D16		RBV-402LFA	DIODE		
D17 -20		HSS104A	DIODE		
D17 -20		1SS131	DIODE		
D17 ,18		HSS104A	DIODE		
D17 ,18		1SS131	DIODE		
D39		HSS104A	DIODE		
D39		1SS131	DIODE		
IC1		BU2090	ANALOGUE IC		
Q1 -4		2SA992(F,E)	TRANSISTOR		
Q7 ,8		2SC1845(F,E)	TRANSISTOR		
Q9 ,10		2SC4137F50(V,W)	TRANSISTOR		
Q11 ,12		2SC1845(F,E)	TRANSISTOR		
Q15 ,16		2SD2493	TRANSISTOR		
Q17 ,18		2SB1624	TRANSISTOR		
Q19 ,20		2SC1845(F,E)	TRANSISTOR		
Q21		2SA992(F,E)	TRANSISTOR		
Q22		2SC1740S(Q,R)	TRANSISTOR		
Q22		2SC2785(F,E)	TRANSISTOR		
Q23		2SC2003(L,K)	TRANSISTOR		
Q24		2SC1845(F,E)	TRANSISTOR		
Q25		2SC3940A(R,S)	TRANSISTOR		
Q26		DTA113ZSA	DIGITAL TRANSISTOR		
Q26		UN4119	DIGITAL TRANSISTOR		
Q27		2SC1740S(Q,R)	TRANSISTOR		
Q27		2SC2785(F,E)	TRANSISTOR		

YMI
YMI
KTEQ
KTEQ

Δ indicates safety critical components.

SPECIFICATIONS

Amplifier section

Rated power output

.....80 W + 80 W (1 kHz, 10 % T.H.D. at 6 Ω)

.....60 W + 60 W (1 kHz, 0.7 % T.H.D. at 6 Ω)

Total harmonic distortion.....0.09 % (1 kHz, 30 W, 6 Ω)

Signal to noise ratio

Line (AUX, MD)

.....90 dB (1HF'A) (SOURCE DIRECT ON)

Input sensitivity / Impedance

Line (AUX, MD)200 mV / 47 kΩ

MIC.....1.6 mV / 600 Ω

Output level / Impedance

SUPER WOOFER PRE OUT

.....2.0 V / 2.2 kΩ (SOURCE DIRECT ON)

MD REC200 mV / 2.2 kΩ

[General]

Power consumption180 W

Dimension.....W : 270 mm (10-5/8")

H : 104 mm (4-1/8")

D : 343 mm (13-1/2")

Weight (net)4.6 kg (10.2 lb)



1. KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.
2. The full performance may not be exhibited in an extremely cold location (under a water freezing temperature)
3. Some items are C-H5~7.

Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on Europe (E) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

KENWOOD CORPORATION

14-6,Dogenzaka 1-chome, Shibuya-ku, Tokyo, 150 Japan

KENWOOD SERVICE CORPORATION

P.O BOX 22745, 2201 East Dominguez St., Long Beach, CA 90801-5745, U.S.A.